

SP/it

Work Order ID 98398 -2

98398

Page 1

March-12-13 1:54:03 PM

Item ID: D2360

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Litter Tie Down Assembly

Start Date: 3/11/13

Start Qty: 4.00

4

Cust Item ID:

Required Date: 3/18/13

Req'd Qty: 4.00

4

Customer:

Reference:

Run Start

NR1

Stop

NR2

Approvals: Process Plan: MJS

Date: 13-03-14

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D2341

Rev F

D2360

Rev D

100

0.00

100

BAND SAW

Bandsaw

Memo

0.00

Jeaspa Bandsaw

Cut blanks: 12.65" Long

110

0.00

110

HAAS CNC VERTICAL MACHINING #1

HAAS 1

Memo

0.00

HAAS CNC vertical machine #1

Machine as per Folio D2341 and Dwg D2341

2-Debur

JFC/ba 2013-04-02

10

0

BT 13-03-31 (x10)

Work Order ID 98398

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98398

Page 2

Item ID: D2360

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Litter Tie Down Assembly

Start Date: 3/11/13 Start Qty: 4.00

4

Cust Item ID:

Required Date: 3/18/13 Req'd Qty: 4.00

4

Customer:

Reference:

Run Start ***NR1***

Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop ***NR2***

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

120

QC2- Inspect parts off machine FAI/FAIB

0.00

120

QC

Memo

0.00

Quality Control

JFC/b 2013-04-02

10

0

130

QC8- Inspect parts - second check

0.00

130

QC

Memo

0.00

Quality Control

E.K 13/04/04

10

0

140

Chemical Conversion Coat per QSI005 4.1

0.00

140

HandFinish

Memo

0.00

Hand Finishing

10 2013-04-05

Work Order ID 98398

98398

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Item ID: D2360

Accept

N9000040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Litter Tie Down Assembly

Start Date: 3/11/13

Start Qty: 4.00

4

Cust Item ID:

Required Date: 3/18/13

Req'd Qty: 4.00

4

Customer:

Reference:

Run Start

NR1

Stop

NR2

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID:

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

150

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

150

Powdercoat

Powder Coating

Memo

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

12:00
3200F
12:30

10X4 M-L 13/04/08

160

QC3- Inspect Part Finish

0.00

160

QC

Quality Control

Memo

0.00

10 φ 13-4-8

170

Small Fab

0.00

170

Small Fab

Small Fab

Memo

Assemble as per dwg D2360

D4
22
13.64.22

Open Role ct.256

4x 11/05/22

Pro →

DAS
36
9-89

RQA:

Date:

14/06/03

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed:

Date:

14-5-29

Work Order update only ☐

Work Order: <u>98398</u>	DISPOSITION Rework <input checked="" type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS			
Part No. <u>D2360</u>		Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>
NCR No. <u>14-3912</u>		Machining <input type="checkbox"/>	Small Fab <input checked="" type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>
		Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>
		Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design	14/05/15	# FD	X	PAINT is stored in Qty x 2 pcs. stored under work station in small FAB with NO protection RC: Handlu + Shearer ison.	DAS 16 9-89 Q2042 14/05/15	Stan entire p/c off as per Q2005 (NOT IN ALODINE ROOM)	7/6/2 14/5/15	DAS 27 9-89 14/5/22	DAS 16 9-89 Q2042 14/05/15
Doc/Data						Re alodn as per Q2005	7/6/2 14/5/15		
Equip/Tooling						Re powder coat as per Q2005 M/D 10/05/15	7/6/2 14/5/15		
Handling/Pre						Start 8:20 Finish Temp 320° Temp 8:50	7/6/2 14/5/15		
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear	General		
<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Folio/Program	<input type="checkbox"/> Outside Dimensions
<input type="checkbox"/> Centre Not Concentric	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Grain	<input type="checkbox"/> Over/Under tolerance
<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damage/Defect	<input type="checkbox"/> Hardware	<input type="checkbox"/> Part Incorrect
<input type="checkbox"/> Crimp/Kink/Ripple/Wave	<input type="checkbox"/> Burrs	<input type="checkbox"/> Inspection Incomplete/Unqualified	<input type="checkbox"/> Part Lost/Missing
<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Instructions Incomplete/Unclear	<input type="checkbox"/> Part Moved
<input type="checkbox"/> Crushing	<input type="checkbox"/> Countersink	<input type="checkbox"/> Misaligned/off center	<input type="checkbox"/> Positioned Wrong
<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Mislabeled	<input type="checkbox"/> Power Loss/Surge
<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Drawing	<input type="checkbox"/> Misread	<input checked="" type="checkbox"/> Other
<input type="checkbox"/> Marks/Chatter	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Off-set	
<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Calibration	
<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Fit/Function	<input type="checkbox"/> Out of Sequence	

Storage of Finished Goods

Work Order ID 98398

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Page 4

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Item ID: D2360

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Litter Tie Down Assembly

Start Date: 3/11/13 Start Qty: 4.00

4

Cust Item ID:

Required Date: 3/18/13 Req'd Qty: 4.00

4

Customer:

Reference:

Run Start *NR1*

Approvals: Process Plan: Date: Tooling: Date:

Stop *NR2*

QC: Date: SPC (Y/N): Date:

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180	QC5- Inspect part completeness to step on W/O	0.00							
180									
QC	Memo	0.00							
Quality Control									
190	Identify as per dwg & Stock Location: 5T22/	0.00							
190									
Packaging	Memo	0.00							
Packaging									
200	QC21- Final Inspection - Work Order Release	0.00							
200									
QC	Memo	0.00							
Quality Control									

4X DAS 28 9-89 MAY 22 2014

MLJ 14-05-26

14-05-23

Picklist Print

March-12-13 1:54:02 PM

Page 1

Work Order ID: 98398

Parent Item: D2360

Parent Item Name: Litter Tie Down Assembly

Start Date: 3/11/13

Required Date: 3/18/13

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP rev H 07.06.12 ecn 825 EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
ANS26C1032R18 Screw		Purchased	No			170	Each	593.0000	1	4		14/05/22	DAS 36 9-89

Location	Loc Qty	Loc Code
FP001	93	
4523	93	
ST346	500	
108079	400	
110099	100	

* AN960JD10 Washer	NAS1149D0363J	Purchased	No			170	Each	0.0000	2	8		14/05/22	DAS 36 9-89
* AN960JD10L Washer	NAS1149D0332J	Purchased	No			170	Each	0.0000	8	32		14/05/22	DAS 36 9-89
D2002-015 Knob		Manufactured	No			170	Each	0.0000	2	8		14/05/22	DAS 36 9-89
D2345 Lock Channel		Manufactured	No			170	Each	11.0000	1	4		14/05/22	DAS 36 9-89

Location	Loc Qty	Loc Code
GA	11	
86349	11	

D2366 Lock Handle		Manufactured	No			170	Each	2.0000	2	8		14/05/22	DAS 36 9-89
----------------------	--	--------------	----	--	--	-----	------	--------	---	---	--	----------	-------------------

Location	Loc Qty	Loc Code
ST009	2	
86351	2	

D2367 Handle Knob		Manufactured	No			170	Each	23.0000	1	4		14/05/22	DAS 36 9-89
----------------------	--	--------------	----	--	--	-----	------	---------	---	---	--	----------	-------------------

Location	Loc Qty	Loc Code
ST009	23	
89083	3	
95711	20	

B110699 (10x)

B108417 (12x)
B114206 (8x)

B109798 (10x)

Picklist Print

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Page 2

Work Order ID: 98398

Parent Item: D2360

Parent Item Name: Litter Tie Down Assembly

Start Date: 3/11/13

Start Qty: 4.00

Required Date: 3/18/13

Required Qty: 4.00

D2372 Manufactured No
Quick Release

170 Each 19.0000 2 8

Location	Loc Qty	Loc Code
GA	19	
86001	2	
95177	5	
97848	12	

14/05/22
B108111 (8x)
DAS 36 9-89

D2373 Manufactured No
Spring

170 Each 9.0000 1 4

Location	Loc Qty	Loc Code
ST009	9	
86352	9	

14/05/22
B102847 (2x)
B108424 (6x)

D2444 Manufactured No
Pip Pin Assembly

170 Each 1.0000 1 4

Location	Loc Qty	Loc Code
ST010	1	
97238	1	

14/05/22
B112945 (10x)
DAS 36 9-89

D6201 Manufactured No
Pip Extrusion

124572 y 10.59

Location	Loc Qty	Loc Code
MAT028	57.91863153	
81421	4.61863153	
83987	20	
89645	13.3	
96808	20	

1.054 4.4378948

MS20470AD3-4 Purchased No
Rivet, Universal Head

170 Each 8,512.0000 1 4

Location	Loc Qty	Loc Code
GA	180	
15541	180	
ST319	8332	
111477	8332	

14/05/22
10
DAS 36 9-89

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Shop Packet Print

Page 2

Picklist Print

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Page 3

Work Order ID: 98398

Parent Item: D2360

Parent Item Name: Litter Tie Down Assembly

Start Date: 3/11/13

Required Date: 3/18/13

Start Qty: 4.00

Required Qty: 4.00

MS21042L3

Purchased

No

170

Each

6,395.0000

3

12

Nut

Location

Loc Qty

Loc Code

FP001

3

122141

3

GA

238

122452

238

ST314

268

117885

32

119017

55

119075

138

123265

43

ST506

5886

123900

1886

124291

4000

MS27039-1-13

Purchased

No

170

Each

550.0000

1

4

Screw

Location

Loc Qty

Loc Code

GA

2

119736

2

ST304

48

119736

48

ST506

500

124326

500

MS27039-1-15

Purchased

No

170

Each

1,028.0000

2

8

Screw

Location

Loc Qty

Loc Code

ST305

28

123352

28

ST506

1000

124326

1000

14/05/22 36 9-89

M126333
3000

DAS
36
9-89

14/05/22

10

DAS
36
9-89

14/05/22

20

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Shop Packet Print

Page 3

Picklist Print

March-12-13 1:54:02 PM

Page 4

Work Order ID: 98398

Parent Item: D2360

Parent Item Name: Litter Tie Down Assembly

Start Date: 3/11/13

Required Date: 3/18/13

Start Qty: 4.00

Required Qty: 4.00

NAS679A3W

Purchased

No

170

Each

174.0000

1

4

Nut

Location

Loc Qty

Loc Code

GA

5

1463

5

2409

169

10

14/04/04

14/05/22

DAS

36

9-89

March-12-13 1:54:02 PM

Shop Packet Print

Page 4

DART AEROSPACE LTD		Work Order: 98398
Description: Litter Tie Down Bracket (Locking)		Part Number: D2341
Inspection Dwg: D2341	Rev: F	Page 1 of 1

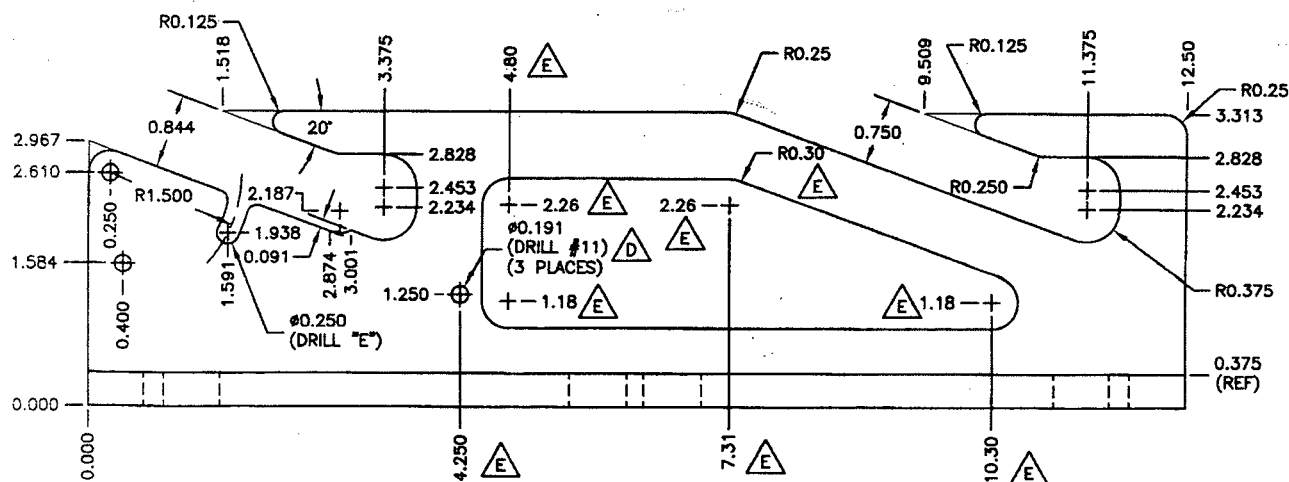
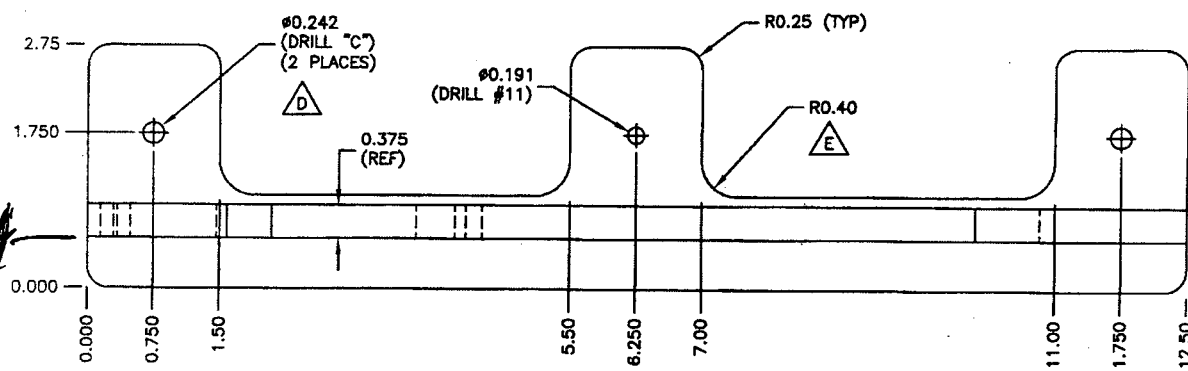
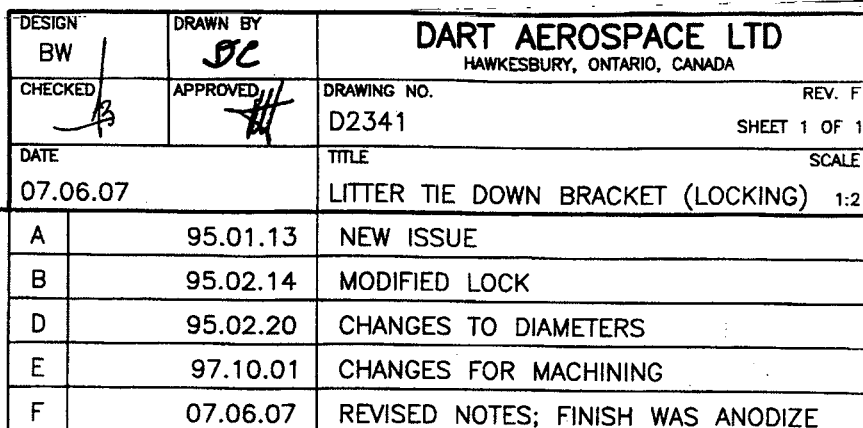
FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
1.750	+/-0.010	1.743	✓		Caliper	JFC-01
2.75	+/-0.030	2.754	✓		"	"
Ø0.242	+0.005/-0.001	0.243	✓		"	"
Ø0.191	+0.005/-0.001	0.193	✓		"	"
R0.25	+/-0.030	R0.250	✓		Rad G	JFC
R0.40	+/-0.030	R0.400	✓		Rad G	JFC
12.50	+/-0.030	12.508	✓		HG	31006
11.750	+/-0.010	11.744	✓		Caliper	CNC-02
11.00	+/-0.030	10.997	✓		HG	3006
7.00	+/-0.030	7.000	✓		HG	3006
6.250	+/-0.010	6.250	✓		Cal	JFC-01
5.50	+/-0.030	5.497	✓		HG	31006
1.50	+/-0.030	1.499	✓		Cal	JFC-01
0.750	+/-0.010	0.749	✓		"	"
0.400	+/-0.010	0.397	✓		"	"
1.584	+/-0.010	1.582	✓		Cal	"
2.610	+/-0.010	2.609	✓		"	"
0.250	+/-0.010	0.251	✓		"	"
0.844	+/-0.010	0.843	✓		"	"
Ø0.250	+/-0.010	0.251	✓		"	"
0.750	+/-0.010	0.750	✓		"	"
3.313	+/-0.010	3.312	✓		"	"
4.250	+/-0.010	4.246	✓		"	"
1.250	+/-0.010	1.250	✓		"	"

Measured by: JFC/ba	Audited by: EK	Prototype Approval: N/A
Date: 2013-04-02	Date: 13/04/04	Date: N/A

Rev	Date	Change	Revised by	Approved
A	06.05.24	New Issue P/O D2360	KJ/JLM	
B	07.07.17	Dwg Rev: updated	KJ/JLM	
C	10.02.02	Dimensions updated	KJ	



- 1) MATERIAL: MAKE FROM D6201-0125 EXTRUSION
(6061-T6 T651 PER QQ-A-200/8)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT WHITE (REF. 4.3.5.1) PER QSI 005 4.3
- 3) BREAK ALL SHARP EDGES TO 0.005 TO 0.010
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED
- 6) IDENTIFY WITH DART P/N "D2341" USING FINE POINT
PERMANENT INK MARKER

RELEASED

07-06-22

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DART**RELEASED**

97 06 07

DESIGN BW	DRAWN BY CB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED CE	APPROVED HA	DRAWING NO. D2360	REV. D SHEET 1 OF 2
DATE 07.06.06		TITLE LITTER TIE DOWN ASSEMBLY (LOCKING) NTS	
A	95.02.10	NEW ISSUE	
B	95.02.20	RE-DESIGN	
C	97.08.27	ADD MS20470AD3-4 RIVET	
D	07.06.06	D2002-015 WAS D2376; SECTION B-B QTY(2) AN960JD10 WAS QTY(3) QTY(8) AN960JD10L WAS QTY(5)	

PARTS LIST:

QTY	PART NUMBER	DESCRIPTION
X	D2360	LITTER TIE DOWN ASSEMBLY (LOCKING)
1	D2341	LITTER TIE DOWN (LOCKING)
1	D2345	LOCK CHANNEL
2	D2366	LOCK HANDLE
1	D2367	KNOB (DELRIN)
2	D2372	QUICK RELEASE FASTENERS
1	D2373	SPRING
2	D2002-015	KNOB (DELRIN)
1	D2444	PIP PIN
1	AN526C1032R18	SCREW
2	AN960JD10	WASHER
8	AN960JD10L	WASHER
1	MS20470AD3-4	RIVET
3	MS21042L3	NUT (OR MS21042-3)
1	MS27039-1-13	SCREW
2	MS27039-1-15	SCREW
1	NAS679A3W	NUT

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DART

DESIGN BW	DRAWN BY CB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	REV. D
CHECKED CE	APPROVED H	DRAWING NO. D2360	SHEET 2 OF 2
DATE 07.06.06		TITLE LITTER TIE DOWN ASSEMBLY (LOCKING) MTS	SCALE

RELEASED

07.06.07

D2444
PIP PIND2372 QUICK RELEASE
(2 PLACES)MS20470AD3-4
(INSTALL IN FIRST
HOLE FROM EDGE)

D2373 SPRING

D2345 LOCK CHANNEL

D2341 LITTER TIE
DOWN (LOCKING)

A

B

A

B

D2366 HANDLE
(2 PLACES)MS27039-1-13 SCREW Δ
AN960JD10L WASHER
D2444 PIP PIN (REF)
AN960JD10L WASHER
D2341 LITTER TIE DOWN (REF)
AN960JD10L WASHER
MS21042L3 NUTANS26C1032R18 SCREW Δ
D2002-015 KNOB
D2366 HANDLE (REF)
D2367 KNOB
D2366 HANDLE (REF)
D2002-015 KNOB
AN960JD10L WASHER
NAS679A3W NUT**D2360 LITTER TIE DOWN ASSEMBLY (LOCKING)**D2345 LOCK
CHANNEL (REF)D2373 SPRING
(REF)D2345 LOCK
CHANNEL (REF)D2373 SPRING
(REF)D2341 LITTER TIE
DOWN (LOCKING)MS27039-1-15 SCREW
AN960JD10L WASHER
D2345 LOCK CHANNEL (REF)
AN960JD10 WASHER
D2341 LITTER TIE DOWN (REF)
AN960JD10 WASHER
D2345 LOCK CHANNEL (REF)
AN960JD10L WASHER
MS21042L3 NUTMS27039-1-15 SCREW
AN960JD10L WASHER
D2345 LOCK CHANNEL (REF)
AN960JD10L WASHER
MS21042L3 NUT**SECTION A-A**
(SCALE 1:1)**SECTION B-B** Δ
(SCALE 1:1)

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